

+3 M A D
 1 CACCGGCGAA GGAGGGATCGA ATTCCCTGCAG CCCGCTATCT GCAGGCCGCC ACCATGGCCG
 GTGGCCGCTT CCTCCTAGCT TAAGGACGTC GGGCGATAGA CGTCCGGCGG TGGTACCGGC
 +3 D Y L I S G G T S Y V P D D G L T A Q Q L
 61 ACTACCTGAT TAGTGGGGGC ACGTCCTACG TGCCAGACGA CGGACTCACA GCACAGCAGC
 TGATGGACTA ATCACCCCCG TGCAAGGATGC ACAGGTCTGCT GCCTGAGTGT CGTGTCTCG
 +3 L F N C G D G L T Y N D F L I L P G Y I D
 121 TCTTCAACTG CGGAGACGGC CTCACCTACA ATGACTTTCT CATTCTCCCT GGGTACATCG
 AGAAGTTGAC GCCTCTGCCG GAGTGGATGT TACTGAAAGA GTAAGAGGGA CCCATGTAGC
 +3 D F T A D Q V D L T S A L T K K I T L K T
 181 ACTTCACTGC AGACCAGGTG GACCTGACTT CTGCTCTGAC CAAGAAAATC ACTCTTAAGA
 TGAAGTGACG TCTGGTCCAC CTGGACTGAA GACGAGACTG GTTCTTTAG TGAGAATTCT
 +3 T P L F S S P M D T V T E A G M A I A M A
 241 CCCCACGGT TTCCCTCTCCC ATGGACACAG TCACAGAGGC TGGGATGGCC ATAGCAATGG
 GGGGTGACCA AAGGAGAGGG TACCTGTGTC AGTGTCTCCG ACCCTACCGG TATCGTTACC
 +3 A L T G G I G F I H H N C T P E F Q A N E
 301 CGCTTACAGG CGGTATTGGC TTCATCCACC ACAACTGTAC ACCTGAATTG CAGGCCAATG
 GCGAATGTCC GCCATAACCG AAGTAGGGTGG TGGTACATG TGGACTTAAG GTCCGGTTAC
 +3 E V R K V K K Y E Q G F I T D P V V L S P
 361 AAGTCGGAA AGTGAAGAAA TATGAACAGG GATTACATCAC AGACCCCTGTG GTCCCTCAGCC
 TTCAAGCCTT TCACTTCTTT ATACTTGTCC CTAAGTAGTG TCTGGGACAC CAGGAGTCGG
 +3 P K D R V R D V F E A K A R H G F C G I P
 421 CCAAGGATCG CGTGGGGGAT GTTTTGAGG CCAAGGCCCG GCATGGTTTC TGCGGTATCC
 GTTCCTAGC GCACGCCCTA CAAAAACTCC GGTCCGGGC CGTACCAAAG ACGCCATAGG
 +3 P I T D T G R M G S R L V G I I S S R D I
 481 CAATCACAGA CACAGGCCGG ATGGGGAGCC GCTTGGTGGG CATCATCTCC TCCAGGGACA
 GTTAGTGTCT GTGTCCGGCC TACCCCTCGG CGAACCCACCC GTAGTAGAGG AGGTCCCTGT
 +3 I D F L K E E E H D C F L E E I M T K R E
 541 TTGATTTCT CAAAGAGGAG GAACATGACT GTTCTTGGG AGAGATAATG ACAAAAGAGGG
 AACTAAAAGA GTTTCTCCTC CTTGTACTGA CAAAGAACCT TCTCTATTAC TGTTCCTCCC
 +3 E D L V V A P A G I T L K E A N E I L Q R
 601 AAGACTTGGT GGTAGCCCT GCAGGCATCA CACTGAAGGA GGCAAATGAA ATTCTGCAGC
 TTCTGAACCA CCATCGGGGA CGTCCGTAGT GTGACTTCCT CCGTTTACTT TAAGACGTCG
 +3 R S K K G K L P I V N E D D E L V A I I A
 661 GCAGCAAGAA GGGAAAGTTG CCCATTGTAATGAAGATGA TGAGCTTGTG GCCATCATTG
 CGTCGTTCTT CCCTTCAAC GGGTAACATT TACTTCTACT ACTCGAACAC CGGTAGTAAC
 +3 A R T D L K K N R D Y P L A S K D A K K Q
 721 CCCGGACAGA CCTGAACAAAC AATCCGGACT ACCCACTAGC CTCCAAAGAT GCCAAGAAC
 GGGCTGTCT GGACTTCTTC TTAGCCCTGA TGGGTGATCG GAGGTTTCTA CGGTTCTTTG
 +3 Q L L C G A A I G T H E D D K Y R L D L L
 781 AGCTGCTGTG TGGGGCAGCC ATTGGCACTC ATGAGGATGA CAAGTATAGG CTGGACTTGC
 TCGACGACAC ACCCCGTCGG TAACCGTGAG TACTCCTACT GTTCATATCC GACCTGAACG
 +3 L A Q A G V D V V V L D S S Q G N S I F Q
 841 TCGCCCCAGGC TGGTGTGGAT GTAGTGGTT TGAACTCTTC CCAGGGAAAT TCCATCTCC
 AGCGGGTCCG ACCACACCTA CATCACAAA ACCTGAGAAG GGTCCCTTA AGGTAGAAGG
 +3 Q I N M I K Y I K D K Y P N L Q V I G G N
 901 AGATCAATAT GATCAAGTAC ATCAAAGACA AATACCCCTAA TCTCCAAGTC ATTGGAGGCA
 TCTAGTTATA CTAGTCATG TAGTTCTGT TTATGGGATT AGAGGTTCAAG TAACCTCCGT

FIG. 1A

+3 N V V T A A Q A K N L I D A G V D A L R V
 961 ATGTGGTCAC TGCTGCCAG GCCAAGAAC TCATTGATGC AGGTGTGGAT GCCCTGCAGGG
 +3 TACACCAGTG ACGACGGGTC CGGTTCTTGG AGTAACATACG TCCACACCTA CGGGACGCC
 V G M G S G S I C I I Q E V L A C G R P Q
 1021 TGGGCATGGG AAGTGGCTCC ATCTGCATTA TCCAGGAAGT GCTGGCCTGT GGGCGGCC
 ACCCGTACCC TTCACCGAGG TAGACGTAAT AGGTCCCTCA CGACCGGACA CCCGCCGGGG
 +3 Q A T A V Y K V Y E Y A R R F G V P V I A
 1081 AAGCAACAGC AGTGTACAAG GTGTATGAGT ATGCACGGCG CTTTGGTGTGTT CCGGTCAATTG
 TTCGTTGTCG TCACATGTT CACATACTCA TACGTGCCGC GAAACCCACAA GGCCAGTAAC
 +3 A D G G I Q N V G H I A K A L A L G A S T
 1141 CTGATGGGAGG AATCCAAAAT GTGGGTCTATA TTGCGAAAGC CTTGGCCCTT GGGGCCTCCA
 GACTACCTCC TTAGGTTTTA CACCCAGTAT AACGCTTCG GAACCGGAA CCCCGGAGGT
 +3 T V M M G S L L A A T T E A P G E Y F F S
 1201 CAGTCATGAT GGGCTCTCTC CTGGCTGCCA CCACTGAGGC CCCTGGTGA TACCTCTTTT
 GTCACTACTA CCCGAGAGAG GACCGACGGT GGTGACTCCG GGGACCACTT ATGAAGAAAA
 +3 S D G I R L K K Y R G M G S L D A M D K H
 1261 CCGATGGGAT CCGGCTAAAG AAATATCGCG GTATGGGTC TCTCGATGCC ATGGACAAGC
 GGCTACCTA GGCGGATTTC TTTATAGCGC CATACCCAAG AGAGCTACGG TACCTGTTCTG
 +3 H L S S Q N R Y F S E A D K I K V A Q G V
 1321 ACCTCAGCAG CCAGAACAGA TATTTCAGTG AAGCTGACAA AATCAAAGTG GCCCAGGGAG
 TGGAGTCGTC GGTCTTGTCT ATAAAGTCAC TTCGACTGTT TTAGTTTCAC CGGGTCCCTC
 +3 V S G A V Q D K G S I H K F V P Y L I A G
 1381 TGTCTGGTGC TGTGCAGGAC AAAGGGTCAA TCCACAAATT TGTCCCTTAC CTGATTGCTG
 ACAGACCACG ACACGTCTG TTTCCCAGTT AGGTGTTAA ACAGGAAATG GACTAACGAC
 +3 G I Q H S C Q D I G A K S L T Q V R A M M
 1441 GCATCCAACA CTCATGCCAG GACATTGGTG CCAAGAGCTT GACCCAAGTC CGAGCCATGA
 CGTAGGTTGT GAGTACGGTC CTGTAACCAC GGTTCTCGAA CTGGGTTCA GCTCGGTACT
 +3 M Y S G E L K F E K R T S S A Q V E G G V
 1501 TGTACTCTGG GGAGCTTAAG TTTGAGAAGA GAACGTCCTC AGCCCAGGTG GAAGGTGGCG
 ACATGAGACC CCTCGAATT CAAACTCTTCT CTTGCAGGAG TCGGGTCCAC CTTCCACCGC
 +3 V H S L H S Y E K R L F
 1561 TCCATAGCCT CCATTCTGAT GAGAACGGC TTTCTGATC TAGCTCGACA TGATAAGATA
 AGGTATCGGA GGTAAGCATA CTCTTCGCCG AAAAGACTAG ATCGAGCTGT ACTATTCTAT
 1621 CATTGATGAG TTTGGACAAA CCACAACCTAG AATGCAGTGA AAAAATGCT TTATTGTGA
 GTAACACTC AAACCTGTT GGTGTTGATC TTACGTCACT TTTTTACGA AATAAACACT
 1681 AATTGATGAT GCTATTGCTT TATTGATGAA ATTGATGATG CTATTGCTT ATTGTAACC
 TTAAACACTA CGATAACGAA ATAAACACTT TAAACACTAC GATAACGAA TAAACATTGG
 1741 ATTATAAGCT GCAATAAACAGTTAACAC AACAAATTGCA TTCATTTAT GTTCAGGTT
 TAATATTGCA CGTTATTGTT TCAATTGTTG TTGTTAACGT AAGTAAATA CAAAGTCCAA
 1801 CAGGGGGAGG TGTGGGAGGT TTTTAAAGC AAGTAAACC TCTACAAATG TGGTAGATCA
 GTCCCCCTCC ACACCCCTCA AAAAATTGCG TTCAATTGAG AGATGTTTAC ACCATCTAGT
 1861 TTTAAATGTT AGCGAAGAAC ATGTGAGCAA AAGGCCAGCA AAAGGCCAGG AACCGTAAAA
 AAATTACAA TCGCTCTTG TACACTCGTT TTCCGGTCGT TTTCCGGTCC TTGGCATT
 1921 AGGCCGCGTT GCTGGCGTTT TTCCATAGGC TCCGCCCGCC TGACGAGCAT CACAAAATC
 TCCGGCGCAA CGACCGCAA AAGGTATCCG AGGCGGGGGG ACTGCTCGTA GTGTTTTAG
 1981 GAGGCTCAAG TCAGAGGTGG CGAAACCCGA CAGGACTATA AAGATACCAAG GCCTTCCCC
 CTGCGAGTTC AGTCTCCACC GCTTTGGC GTCTGATAT TTCTATGGTC CGCAAAGGGG

FIG. 1B

2041 CTGGAAGCTC CCTCGTGCAG GACCTTCGAG GGAGCACCGAG AGAGGACAAG GCTGGGACGG CGAATGGCCT ATGGACAGGC
2101 CCTTTCTCCC TTCGGGAAGC GTGGCGCTT CTCAAATGCTC ACGCTGTAGG TATCTCAGTT
GGAAAGAGGG AAGCCCTTCG CACCGCGAAA GAGTTACGAG TGCGACATCC ATAGAGTC
2161 CGGGTAGGT CGGGCGCTCC AAGCTGGGCT GTGTGCACGA ACCCCCCGTT CAGCCCGACC
GCCACATCCA GCAAGCGAGG TTGACCCGA CACACGTGCT TGGGGGGCAA GTCGGGCTGG
2221 GCTGCGCCTT ATCCGTAAC TATCGTCTTG AGTCCAACCC GGTAAGACAC GACTTATCGC
CGACGGGAA TAGGCCATTG ATAGCAGAAC TCAGGTTGGG CCATTCTGTG CTGAATAGCG
2281 CACTGGCAGC AGCCACTGGT AACAGGATTA GCAGAGCGAG GTATGTAGGC GGTGCTACAG
GTGACCGTCTG TCGGTGACCA TTGTCCTAAT CGTCTCGCTC CATAACATCCG CCACGATGTC
2341 AGTTCTTGAA GTGGTGGCCT AACTACGGCT ACACTAGAAC AACAGTATTG GGTATCTGCG
TCAAGAACTT CACCACCGGA TTGATGCCGA TGTGATCTTC TTGTCATAAA CCATAGACGC
2401 CTCTGCTGAA GCCAGTTACC TTCGGAAAAA GAGTTGGTAG CTCTTGATCC GGCAAAACAAA
GAGACGACTT CGGTCAATGG AAGCCTTTT CTCAACCATC GAGAACTAGG CCGTTTGT
2461 CCACCGCTGG TAGCGGTGGT TTTTTGTG GCAAGCAGCA GATTACGCGC AGAAAAAAAG
GGTGGCGACC ATCGCCACCA AAAAACAAA CGTTCGTCGT CTAATGCGG TCTTTTTTC
2521 GATCTCAAGA AGATCCTTTG ATCTTTCTA CGGGGTCTGA CGCTCAGTGG AACGAAA
CTAGAGTTCT TCTAGGAAAC TAGAAAAGAT GCCCCAGACT GCGAGTCACC TTGCTTTG
2581 CACGTTAAGG GATTTGGTC ATGGCTAGTT AATTAAGCTG CAATAAACAA TCATTATTT
GTGCAATTCC CTAAAACCAG TACCGATCAA TTAATTGAC GTTATTGTT AGTAATAAAA
2641 CATTGGATCT GTGTGTTGGT TTTTTGTG TG GGTGGGGGG AGGGGGAGGC CAGAATGACT
GTAACCTAGA CACACAAACCA AAAAACACAC CCGAACCCCCC TCCCCCTCCG GTCTTACTGA
2701 CCAAGAGCTA CAGGAAGGCA GGTCAAGAGAC CCCACTGGAC AAACAGTGGC TGGACTCTGC
GGTTCTCGAT GTCTTCCGT CCAGTCTCTG GGGTGACCTG TTTGTCAACCG ACCTGAGACG
2761 ACCATAAACAC ACAATCAACA GGGGAGTGAG CTGGATCGAG CTAGAGTC
TGGTATTGTT TGTTAGTTGT CCCCTCACTC GACCTAGCTC GATCTCAGGC AATGTATTGA
2821 TACGGTAAAT GGCCCGCTG GCTGACCGCC CAACGACCCCC CGCCCATTTGA CGTCAATAAT
ATGCCATTAA CGGGCGGAC CGACTGGCGG GTTGCTGGGG GCGGGTAAC GCAGTTATTA
2881 GACGTATGTT CCCATAGTA CGCCAATAGG GACTTCCAT TGACGTCAAT GGGTGGAGTA
CTGCATACAA GGGTATCATT GCGGTTATCC CTGAAAGGT ACTGCAGTT CCCACCTCAT
2941 TTTACGGTAA ACTGCCCACT TGGCAGTACA TCAAGTGTAT CATATGCCAA GTACGCC
AAATGCCATT TGACGGGTGA ACCGTCAATG AGTTCACATA GTATACGGTT CATGCC
3001 TATTGACGTC AATGACGGTA AATGGCCCGC CTGGCATTAT GCCCAGTACA TGACCTTATG
ATAACTGCAG TTACTGCCAT TTACCGGGCG GACCGTAATA CGGGTCATGT ACTGAAATAC
3061 GGACTTTCCCT ACTTGGCAGT ACATCTACGT ATTAGTCATC GCTATTACCA TGTTGATGCG
CCTGAAAGGA TGAACCGTCA TGTAGATGCA TAATCAGTAG CGATAATGGT ACCACTACGC
3121 GTTTGGCAG TACATCAATG GCGGTGGATA GCGGTTGAC TCACGGGGAT TTCCAAGTCT
CAAAACCGTC ATGTAGTTAC CCGCACCTAT CGCCAAACTG AGTGC
3181 CCACCCATT GACGTCAATG GGAGTTGTT TTGGCACCAA AATCAACGGG ACTTCC
GGTGGGGTAA CTGCAGTTAC CCTCAAACAA AACCGTGGTT TTAGTTGCC TGAAAGGTT
3241 ATGTCGTAAC AACTCCGCC CATTGACGCA AATGGGCGGT AGGCGTGTAC GGTGGGAGGT
TACAGCATTG TTGAGGGGG GTAAGTGCCT TTACCCGCCA TCCGCACATG CCACCC
3301 CTATATAAGC AGAGCTCGTT TAGTGAACCG TCAGATGCC TGGAGACGCC ATCCACGCTG
GATATATTGCG TCTCGAGCAA ATCACTTGCG AGTCTAGCGG ACCTCTGCGG TAGGTGCGAC
3361 TTTTGACCTC CATAGAAGAC ACCGGGACCG ATCCAGCCTC CGCGGCCGGG AACGGTGCAT
AAAACGGAG GTATCTCTG TGGCCCTGGC TAGGTGGAG GCGCCGGCCC TTGCCACGTA

FIG. 1C

Title: SELECTION SYSTEMS FOR GENETICALLY MODIFIED
CELL
Applicant: JENSEN, M.
Filed: April 30, 2001
Examiner: Unassigned
Serial No.: 09/846,637
Our Docket No.: 24751-2502
Art Unit: 1645

3421 TGGAACGCGG ATTCCCCGTG CCAAGAGTGA CGTAAGTACC GCCTATAGAG TCTATAGGCC
ACCTTGCGCC TAAGGGGCAC GGGTCTCACT GCATTCTATGG CGGATATCTC AGATATCCGG
3481 CACCCCCCTTG GCTTCTTATG CATGCTATAAC TGTTTTGGC TTGGGGTCTA TACACCCCG
GTGGGGGAAC CGAAGAATAC GTACGATATG ACAAAACCG AACCCCAGAT ATGTGGGGC
3541 CTTCCCTCATG TTATAGGTGA TGGTATAGCT TAGCCTATAG GTGTGGGTTA TTGACCATTA
GAAGGAGTAC AATATCCACT ACCATATCGA ATCGGATATC CACACCCAAT AACTGGTAAT
3601 TTGACCACTC CCCTATTGGT GACGATACTT TCCATTACTA ATCCATAACA TGGCTCTTG
AACTGGTGAG GGGATAACCA CTGCTATGAA AGGTAATGAT TAGTATTGT ACCGAGAAC
3661 CCACAACCTCT CTTTATTGGC TATATGCCA TACACTGTCC TTCAGAGACT GACACGGACT
GGTGTGAGA GAAATAACCG ATATACGGTT ATGTGACAGG AAGTCTCTGA CTGTGCCTGA
3721 CTGTATTTC ACAGGATGGG GTCTCATTTA TTATTACAA ATTACACATAT ACAACACAC
GACATAAAA TGTCCTACCC CAGAGTAAAT AATAAATGTT TAAGTGTATA TGTTGTGGTG
3781 CGTCCCCAGT GCCCGCAGTT TTATTAAAC ATAACGTGGG ATCTCCACGC GAATCTCGGG
GCAGGGGTCA CGGGCGTCAA AAATAATTG TATTGCACCC TAGAGGTGCG CTTAGAGCCC
3841 TACGTGTTCC GGACATGGGC TCTTCTCCGG TAGCGCGGA GCTTCTACAT CCGAGCCCTG
ATGCACAAGG CCTGTACCCG AGAAGAGGCC ATCGCCGCCT CGAAGATGTA GGCTCGGGAC
3901 CTCCCATGCC TCCAGCGACT CATGGTCGCT CGGCAGCTCC TTGCTCCTAA CAGTGGAGGC
GAGGGTACGG AGGTCGTGA GTACCAAGCGA GCCGTCGAGG AACGAGGATT GTCACCTCCG
3961 CAGACTTAGG CACAGCACGA TGCCCACAC CACCAAGTGTG CCGCACAAGG CCGTGGCGGT
GTCTGAATCC GTGTCGTGCT ACGGGTGGTG GTGGTCACAC GGCCTGTTCC GGCACCGCCA
4021 AGGGTATGTG TCTGAAAATG AGCTGGGGA GCGGGCTTGC ACCGCTGACG CATTGGAAG
TCCCACACAG ACTTTTAC TCGAGCCCCT CGCCCGAACG TGGCGACTGC GTAAACCTTC
4081 ACTTAAGGCA GCGGCAGAAG AAGATGCAGG CAGCTGAGTT GTTGTGTTCT GATAAGAGTC
TGAATTCCGT CGCCGCTTTC TTCTACGTCC GTCGACTCAA CAACACAAGA CTATTCTCAG
4141 AGAGGTAAC TCCGTTGCGG TGCTGTTAAC GGTGGAGGGC AGTGTAGTCT GAGCAGTACT
TCTCCATTGA GGGCAACGCC ACCACAATTG CCACCTCCCG TCACATCAGA CTCGTATGA
4201 CGTTGCTGCC GCGCGCGCCA CCAGACATAA TAGCTGACAG ACTAACAGAC TGTTCTTTC
GCAACGACGG CGCGCGCGGT GGTCTGTATT ATCGACTGTC TGATTGTCTG ACAAGGAAAG
MCS

4261 CATGGGTCTT TTCTGCAGTC ACCCGGGGGA TCCTTCGAAC GTAGCTCTAG ATTGAGTCGA
GTACCCAGAA AAGACGTCAG TGGGCCCTCCT AGGAAGCTTG CATCGAGATC TAACTCAGCT
4321 CGTTACTGGC CGAACCGCGT TGAATAAGG CCGGTGTGCG TTTGTCTATA TGTTATTTC
GCAATGACCG GCTTCGGCGA ACCTTATTCC GGCCACACGC AAACAGATAT ACAATAAAAG
4381 CACCATATTG CCGTCTTTG GCAATGTGAG GGCCCGGAAA CCTGGCCCTG TCTTCTTGAC
GTGGTATAAC GGCAGAAAAC CGTTACACTC CCGGGCCTTT GGACCGGGAC AGAAGAACTG
4441 GAGCATTCCCT AGGGGTCTTT CCCCTCTCGC CAAAGGAATG CAAGGTCTGT TGAATGTCGT
CTCGTAAGGA TCCCCAGAAA GGGGAGAGCG GTTCCCTTAC GTTCCAGACA ACTTACAGCA
4501 GAAGGAAGCA GTTCCCTCTGG AAGCTTCTTG AAGACAAACA ACGTCTGTAG CGACCCTTG
CTTCCTTCGT CAAGGAGACC TTGAGAAGAC TTCTGTTGT TGAGACATC GCTGGGAAAC
4561 CAGGCAGCGG AACCCCCCAC CTGGCGACAG GTGCCTCTGC GGCCAAAAGC CACGTGTATA
GTCCGTGCGC TTGGGGGTG GACCGCTGTC CACGGAGACG CCGGTTTCG GTGCACATAT
4621 AGATACACCT GCAAAGGCAG CACAACCCCA GTGCCACGTT GTGAGTTGGA TAGTTGTGGA
TCTATGTGGA CGTTTCCGCC GTGTTGGGGT CACGGTGCAA CACTCAACCT ATCAACACCT
4681 AAGAGTCAAA TGGCTCTCCT CAAGCGTATT CAACAAGGGG CTGAAGGATG CCCAGAAGGT
TTCTCAGTTT ACCGAGAGGA GTTCGCATTA GTTGTCCCC GACTTCCTAC GGGTCTTCCA
4741 ACCCCATTGT ATGGGATCTG ATCTGGGGCC TCGGTGCACA TGCTTACAT GTGTTAGTC
TGGGTAACA TACCTAGAC TAGACCCCG AGCCACGTGT ACGAAATGTA CACAAATCAG

FIG. 1D

4801 GAGGTTAAAAA AAACGTCTAG GCCCCCCGAA CCACGGGAC GTGGTTTCC TTTGAAAAAC
 CTC CAATT TTG CAGATC CGGGGGCTT GGTGCCCTG CACCAAAGG AAAC TTTTG
 4861 ACGATAATAC CATGGGTAAAG TGATATCTAC TAGTTGTGAC CGCGCCTAG TGTTGACAAT
 TGCTATTATG GTACCCATTC ATCATAGATG ATCAACACTG GCCGCGGATC ACAACTGTTA
 4921 TAATCATCGG CATAGTATAT CGGCATAGTA TAATACGACT CACTATAGGA GGGCACCAT
 ATTAGTAGCC GTATCATATA GCCGTATCAT ATTATGCTGA GTGATATCCT CCCGGTGGTA
 4981 GTCGACTACT AACCTCTTC TCTTCCTAC AGCTGAGATC ACCGGTAGGA GGGCATCAT
 CAGCTGATGA TTGGAAGAAG AGAAAGGATG TCGACTCTAG TGGCCATCCT CCCGGTAGTA
 5041 GAAAAAGCCT GAACTCACCG CGACGTCTGT CGCGAAGTTT CTGATCGAAA AGTCGACAG
 CTTTTCGGA CTTGAGTGGC GCTGCAGACA GCGCTCAA GACTAGCTTT TCAAGCTGTC
 5101 CGTCTCCGAC CTGATGCAGC TCTCGGAGGG CGAAGAATCT CGTGCTTCA GCTTCGATGT
 GCAGAGGCTG GACTACGTCG AGAGCCTCCC GCTTCTAGA GCACGAAAGT CGAAGCTACA
 5161 AGGAGGGCGT GGATATGTCC TGCGGGTAAA TAGCTGCGCC GATGGTTCT ACAAAAGATCG
 TCCTCCCGCA CCTATACAGG ACGCCCATT ATCGACGCGG CTACCAAAGA TGTTCTAGC
 5221 TTATGTTTAT CGGCACCTTG CATCGGCCGC GCTCCGATT CGGAAAGTGC TTGACATTGG
 AATACAAATA GCCGTGAAAC GTAGCCGGCG CGAGGGCTAA GGCCTTCACG AACTGTAACC
 5281 GGAATTTCAGC GAGAGCCTGA CCTATTGCAT CTCCCGCGT GCACAGGGTG TCACGTTGCA
 CCTTAAGTCG CTCTCGGACT GGATAACGTA GAGGGCGGCA CGTGTCCCAC AGTGAACGT
 5341 AGACCTGCCT GAAACCGAAC TGCCCGCTGT TCTGCAACCC GTCGCGGAGC TCATGGATGC
 TCTGGACGGA CTTTGGCTTG ACAGGGCGACA AGACGTTGGG CAGCGCCTCG AGTACCTACG
 5401 GATCGCTGCG GCCGATCTTA GCGAGACGAG CGGGTTCGGC CCATTGGAC CGCAAGGAAT
 CTAGCGACGC CGGCTAGAAT CGGTCTGCTC GCCCAGGCCG GTAAAGCCTG GCGTCCCTA
 5461 CGGTCAATAC ACTACATGGC GTGATTTCAT ATGCGCGATT GCTGATCCCC ATGTGTATCA
 GCCAGTTATG TGATGTACCG CACTAAAGTA TACGCGCTAA CGACTAGGGG TACACATAGT
 5521 CTGGCAAACACT GTGATGGACG ACACCGTCAG TGCGTCCGTC GCGCAGGCTC TCGATGAGCT
 GACCGTTTGA CACTACCTGC TGTGGCAGTC ACGCAGGCAG CGCGTCCGAG AGCTACTCGA
 5581 GATGCTTTGG CGCGAGGACT GCCCCGAAGT CGGGCACCTC GTGCACGCCG ATTCGGCTC
 CTACGAAACC CGGCTCCCTGA CGGGGCTTCA GGCGTGGAG CACGTGCGCC TAAAGCCGAG
 5641 CAACAATGTC CTGACGGACA ATGGCCGCAT AACAGCGTC ATTGACTGGA GCGAGGGCGAT
 GTTGTACAG GACTGCTGT TACCGGGCGTA TTGTCGCCAG TAACTGACCT CGCTCCGCTA
 5701 GTTCGGGGAT TCCAATACG AGGTGCGCCAA CATCTTCTTC TGGAGGCCGT GGTTGGCTTG
 CAAGCCCCCTA AGGGTTATGC TCCAGCGGTT GTAGAAGAAC ACCTCCGGA CCAACCGAAC
 5761 TATGGAGCAG CAGACCGCCT ACTTCGAGCG GAGGCATCCG GAGCTTGCAG GATGCCGCG
 ATACCTCGTC GTCTCGCGA TGAAGCTCGC CTCCGTAGGC CTCGAACGTC CTAGCGCGC
 5821 GCTCCGGCG TATATGCTCC GCATTGGTCT TGACCAACTC TATCAGAGCT TGGTTGACGG
 CGAGGCCCGC ATATACGAGG CGTAACCAGA ACTGGTTGAG ATAGTCTCGA ACCAACTGCC
 5881 CAATTTCGAT GATGCAGCTT GGGCGCAGGG TCGATGCGAC GCAATCGTCC GATCCGGAGC
 GTTAAAGCTA CTACGTCGAA CCCCGTCCC AGCTACGCTG CGTTAGCAGG CTAGGCCTCG
 5941 CGGGACTGTC GGGCGTACAC AAATCGCCCG CAGAAGCGCG GCGCTCTGGA CCGATGGCTG
 GCCCTGACAG CCCGCATGTG TTAGCGGGC GTCTCGCGC CGGCAGACCT GGCTACCGAC
 6001 TGTAGAAGTC GCGTCTCGT TCGACCAGGC TCGCGTTCT CGCGGCCATA GCAACCGACG
 ACATCTTCAG CGCAGACGCA AGCTGGTCCG ACGCGCAAGA GCGCCGGTAT CGTTGGCTGC
 6061 TACGGCGTTG CGCCCTCGCC GGCAAGCAAGA AGCCACGGAA GTCCGCCCGG AGCAGAAAAT
 ATGCCGCAAC CGGGGAGCGG CGCTCGTTCT TCGGTGCCTT CAGGCGGGCC TCGTCTTTA
 6121 GCCCACGCTA CTGCGGGTTT ATATAGACGG TCCCCACGGG ATGGGGAAAA CCACCAACCAC
 CGGGTGCAGT GACGCCAAA TATATCTGCCC AGGGGTGCC C TACCCCTTT GGTGGTGGTG

FIG. 1E

Title: SELECTION SYSTEMS FOR GENETICALLY MODIFIED
CELL
Applicant: JENSEN, M
Filed: April 30, 2001
Examiner: Unassigned
Serial No. 09/846,637
Our Docket No.: 24751-2502
Art Unit: 1645

6181 GCAACTGCTG GTGGCCCTGG GTTCGCGCGA CGATATCGTC TACGTACCCG AGCCGATGAC
CGTTGACGAC CACCGGGACC CAAGCGCGT GCTATAGCAG ATGCATGGC TCGGCTACTG
6241 TTACTGGCGG GTGCTGGGG CTTCCGAGAC AATCGCGAAC ATCTACACCA CACAACACCG
AATGACCGCC CACGACCCCC GAAGGCTCTG TTAGCGCTTG TAGATGTGGT GTGTTGTGGC
6301 CCTCGACCAG GGTGAGATAT CGGCCGGGGA CGCGCGGGT GTAATGACAA GCGCCCAGAT
GGAGCTGGTC CCACTCTATA GCCGGCCCGT GCGCCGCCAC CATTACTGTT CGCGGGTCTA
6361 AACAAATGGGC ATGCCTTATG CCGTGACCGA CGCCGTTCTG GCTCCTCATA TCGGGGGGGA
TTGTTACCCG TACGGAATAC GGCACTGGCT GCGGCAAGAC CGAGGAGTAT AGCCCCCCCCT
6421 GGCTGGGAGC TCACATGCC CCGCCCCCGGC CCTCACCCCTC ATCTTCGACC GCCATCCCAT
CCGACCCCTCG AGTGTACGGG GCGGGGGCCG GGAGTGGGAG TAGAAGCTGG CGGTAGGGTA
6481 CGCCGCCCTC CTGTGCTTAC CGGCCGCGCG GTACCTTATG GGCAGCATGA CCCCCCAGGC
GCGGCGGGAG GACACGATGG GCCGGCGCGC CATGGAATAC CCGTCGTACT GGGGGGTCCG
6541 CGTGTGGCG TTCGTGGCC TCATCCCGCC GACCTGCCC GGCACCAACA TCGTGCTTGG
GCACGACCGC AAGCACCGG AGTAGGGCGG CTGGAACGGG CCGTGGTTGT AGCACGAACC
6601 GGCCCTTCCG GAGGACAGAC ACATCGACCG CCTGGCCAAA CGCCAGCGCC CGGGCGAGCG
CCGGGAAGGC CTCCGTCTG TGTAGCTGGC GGACCGGTTT GCGGTGCGGG GGCGCTCGC
6661 GCTGGACCTG GCTATGCTGG CTGCGATTCTG CCGCGTTTAC GGGCTACTTG CCAATACGGT
CGACCTGGAC CGATACGACC GACGCTAACGC GGCGCAAATG CCCGATGAAC GGTTATGCCA
6721 GCGGTATCTG CAGTGGCGC GGTGCGGGC GGAGGACTGG GGACAGCTT CGGGGACGGC
CGCCATAGAC GTCACGCCGC CCAGCACCGC CCTCCTGACC CCTGTCGAAA GCCCTGCCG
6781 CGTGCAGCCC CAGGGTGGCG AGCCCCAGAG CAACCGGGC CCACGACCCC ATACGGGGGA
GCACGGCGGG GTCCCCACGGC TCGGGGTCTC GTTGCAGCCC GGTGCTGGGG TATAGCCCC
6841 CACGTTATT ACCCTGTTTC GGGCCCCCGA GTTGCTGGCC CCCAACGGCG ACCTGTATAA
GTGCAATAAA TGGGACAAAG CCCGGGGGCT CAACGACCGG GGGTTGCCG TGGACATATT
6901 CGTGTGTTGCC TGGGCTTGG ACGTCTTGGC CAAACGCCCTC CGTTCCATGC ACGTCTTTAT
GCACAAACGG ACCCGGAACC TGCAGAACCG GTTGCAGGG GCAAGGTACG TGCAGAAATA
6961 CCTGGATTAC GACCAATCGC CCGCCGGCTG CGGGGACGCC CTGCTGCAAC TTACCTCCGG
GGACCTAATG CTGGTTAGCG GGCAGGGCAG GGCCTGCGG GACGACGTTG AATGGAGGCC
7021 GATGGTCCAG ACCCACGTCA CCACCCCCCG CTCCATACCG ACGATATGCG ACCTGGCGCG
CTACCAGGTC TGGGTGCACT GGTGGGGGCC GAGGTATGGC TGCTATACGC TGGACCGCGC
7081 CACGTTGCC CGGGAGATGG GGGAGGCTAA CTGAGTCGAG AATTGCTAG AGGGCCCTAT
GTGCAAACGG GCCCCTCTACC CCTCCGATT GACTCAGCTC TTAAGCGATC TCCCGGATA
7141 TCTATAGTGT CACCTAAATG CTAGAGCTCG CTGATCGCC TCGACTGTGC CTTCTAGTTG
AGATATCACA GTGGATTCTAC GATCTCGAGC GACTAGTCGG AGCTGACACG GAAGATCAAC
7201 CCAGCCATCT GTGTTTGCC CCTCCCCCGT GCCTTCCCTG ACCCTGGAAG GTGCCACTCC
GGTCGGTAGA CAACAAACGG GGAGGGGGCA CGGAAGGAAC TGGGACCTTC CACGGTGAGG
7261 CACTGTCCTT TCCTAATAAA ATGAGGAAAT TGCACTCGAT TGTCTGAGTA GGTGTCATTC
GTGACAGGAA AGGATTATTT TACTCCTTTA ACGTAGCGTA ACAGACTCAT CCACAGTAAG
7321 TATTCTGGGG GGTGGGGTGG GGCAGGACAG CAAGGGGGAG GATTGGGAAG ACAATAGCAG
ATAAGACCCC CCACCCACC CGTCCTGTC GTTCCCCCTC CTAACCTTC TGTTATCGTC
7381 GCATGCGCAG GGCACATTG CTCGAGCGGC CGCAATAAAA TATCTTTATT TTCATTACAT
CGTACGCGTC CGGGGTTAAC GAGCTCGCC CGCTTATTTT ATAGAAATAA AAGTAATGTA
7441 CTGTGTGTTG GTTTTTG TGAACTCGTAA CTAACATACG CTCTCCATCA AAACAAAACG
GACACACAAAC CAAAAAACAC ACTTAGCATT GATTGTATGC GAGAGGTTAGT TTTGTTTGC
7501 AAACAAAACA AACTAGAAA ATAGGCTGTC CCCAGTGCAA GTGCAGGGTGC CAGAACATT
TTTGTGTTG TTGATCGTT TATCCGACAG GGGTCACGTT CACGTCCACG GTCTTGAAA

FIG. 1F

7561 CTCTATCGAA GGATCTCGA TCGCTCCGGT GCCCCGTCAGT GGGCAGAGCG CACATGCC
GAGATAGCTT CCTAGACGCT AGCGAGGCCA CGGGCAGTCA CCCGTCTCGC GTGTAGCGGG
7621 ACAGTCCCCG AGAACGTTGGG GGGAGGGGTC GGCAATTGAA CCGGTGCCA GAGAACGGTGG
TGTCAGGGGC TCTTCAACCC CCCTCCCCAG CCGTTAACCTT GGCCACGGAT CTCTTCCACC
7681 CGCGGGGTAA ACTGGGAAAG TGATGTCGTG TACTGGCTCC GCCTTTTCC CGAGGGTGGG
GCGCCCCATT TGACCCCTTC ACTACAGCAC ATGACCGAGG CGGAAAAGG GCTCCCACCC
7741 GGAGAACCGT ATATAAGTGC AGTAGTCGCC GTGAACGTT TTTTCGCAA CGGGTTGCC
CCTCTTGGCA TATATTACG TCATCAGCGG CACTGCAAG AAAAGCGTT GCCCAAACGG
7801 GCCAGAACAC AGCTGAAGCT TCGAGGGGCT CGCATCTCTC TTTCACGCC CCGCCGCCCT
CGGTCTTGTG TCGACTTCGA AGCTCCCCGA GCGTAGAGAG GAAGTGCACGG GGCACGGGAA
7861 ACCTGAGGCC GCCATCCACG CCGGTTGAGT CGCGTTCTGC CGCCTCCCGC CTGTGGTGC
TGGACTCCGG CGGTAGGGTGC GGCCAACTCA GCGCAAGACG GCGGAGGGCG GACACCACGG
7921 TCCTGAACTG CGTCCGCCGT CTAGGTAAGT TTAAAGCTCA GGTGAGACCC GGGCCTTTGT
AGGACTTGAC GCAGGCGGCA GATCCATTCA AATTCGAGT CGAGCTCTGG CCCGGAAACA
7981 CGGCGCTCC CTTGGAGCCT ACCTAGACTC AGCCGGCTCT CCACGCTTTG CCTGACCTTG
GGCCCGGAGG GAACCTCGGA TGGATCTGAG TCGGCCAGA GGTGCGAAC GGACTGGGAC
8041 CTTGCTAAC TCTACGTCTT TGTTCGTTT TCTGTTCTGC GCCGTTACAG ATCCAAGCTG
GAACGAGTTG AGATGCAGAA ACAAAAGCAA AGACAAGACG CGGCAATGTC TAGGTTGAC
8101 TGACCGGCGC CTACGTAAGT GATATCTACT AGATTATCA AAAAGAGTGT TGACTTCTGA
ACTGGCCGCG GATGCATTCA CTATAGATGA TCTAAATAGT TTTCTCACA ACTGAACACT
8161 GCGCTCACAA TTGATACTTA GATTCATCGA GAGGGACACG TCGACTACTA ACCTTCTTCT
CGCGAGTGT AACTATGAAT CTAAGTAGCT CTCCCTGTGC AGCTGATGAT TGGAAGAAGA
8221 CTTTCCTACA GCTGAGAT
GAAAGGATGT CGACTCTA

FIG. 1G